

Milestone 5: Unit Testing

Team: Cache Me if You Can

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Vision: To create a social geocaching application which inspires collaboration among CU students.

Automated Testing:

The user acceptance testing below will be automated using selenium. The workflow will be such that any pull requests made should not create regressions. The code for the selenium is in the devtest branch of the repository.

User Acceptance Testing:**1. Scope**

We define the scope of our user acceptance tests as follows

- a. In Scope
 - i. New user creation
 - ii. User log in
 - iii. Riddle Solving
- b. Out of Scope
 - i. Prize acceptance

2. Assumptions

Prior to starting our UAT we assume the following about our application

- a. The website is properly served, and is accessible to users with an internet connection
- b. The bootstrap framework is properly implemented, so the website is easily navigable by a user with a smartphone
- c. The html is properly coded such that page navigation functions correctly

3. Risks

Some of the risks which would limit the effectiveness of our UAT include

- a. Limited test environment: This application is meant to function throughout the entirety of campus and the surrounding Boulder area; unfortunately, given the limited time we have users will likely only visit one or two test locations. Accordingly, these tests may not provide comprehensive insight into how Cache Me if You Can will function when users explore new places.
- b. Limited user group: In terms of log in and new user creation, there are only so many students/ scenarios we can test. Accordingly, it is possible that we do not catch a certain test case (ie creating an account with an improper/ profane username, etc) during our UAT

4. User Acceptance Testing Stakeholders

During our UAT we will employ an assistive testing model; therefore, those involved will include

- a. L1 Cache Team: Provide initial instruction to users on using Cache Me if You Can, and answer followup questions with users throughout testing
- b. Users: Execute test plan and ask questions if/when they arise

5. User Acceptance Test Cases

The following outlines the test cases and their expected results

- a. Test Case 1: New User Creation
 - i. A user without a previous account will attempt to log in
 - 1. Expected Result: The user will be unable to log in
 - ii. The user will navigate to the new user page
 - iii. The user will enter the username of a current user and any password
 - 1. Expected Result: The user will be informed that this username is unavailable, and will be asked to try another
 - iv. The user will enter a new username and any password
 - 1. Expected Result: The user will be granted access to the webpage with this username and password
- b. Test Case 2: Existing User Login
 - i. A user with an account previously created will open the application
 - ii. The user will navigate to the login page
 - iii. The user will attempt to log in with their username and an incorrect password
 - 1. Expected Result: The user will be unable to log in to the application
 - iv. The user will attempt to log in with their password and an incorrect username
 - 1. Expected Result: The user will be unable to log in to the application
 - v. The user will attempt to log in with their correct password and username
 - 1. Expected Result: The user will be granted access to the application
 - vi. The user will navigate the application to see their current treasure hunt progress
 - 1. Expected Result: The user will see the correct amount of progress completed on his/her account (ie if he/she has performed Test 3 prior to this test he/she should see one riddle complete; whereas, if he/she has not yet performed Test 3 he/she should be informed that 0 riddles are complete)
- c. Test Case 3: Riddle Solving
 - i. The user will enter a correct riddle answer on the Riddles page at an incorrect location (as we will be testing riddle 1, this means the user will enter '54', while being in a location other than The Sink on the Hill)
 - 1. Expected Result: The user will be informed that he/she had the correct answer, but was at an incorrect location, and will be

- prompted to reattempt riddle. The progress through the treasure hunt should remain unchanged (0 riddles complete in this case).
- ii. The user will navigate to the location dictated by the riddle (in this case The Sink on the Hill). The L1 Cache Team will provide assistance if the user cannot decipher this location based solely on the hint
 - iii. The user will enter an incorrect answer at the proper location (ie he/ she will enter '53' while being at The Sink)
 - 1. Expected Result: The user will be informed that he/she was at the correct location, but entered an incorrect answer. He/she will be prompted to reattempt riddle. User progress through the treasure hunt will also remain unchanged (0 riddles complete in this case).
 - iv. The user will enter a correct answer to the riddle while being at the proper location (ie the user will enter '54' while at The Sink)
 - 1. Expected Result: The user will be informed that the/she solved the riddle. Their page will be updated to show updated progress (1 riddle completed) and the next riddle.

Resources:

Information Technology Services I. (n.d.). Retrieved December 03, 2017, from

<https://its.sfsu.edu/.../SFSU%20User%20Acceptance%20Test%20Plan%20Template>

IIBA St Louis. (n.d.). Retrieved December 03, 2017, from

<https://stlouis.iiba.org/sites/stlouis/files/.../User%20Acceptance%20Test%20Plan.docx>

What are the main problems facing in User Acceptance Testing (UAT) and its solutions? (2015, September 15). Retrieved December 03, 2017, from

<http://www.softwaretestingclass.com/what-are-the-main-problems-facing-in-user-acceptance-testing-uat-and-its-solutions/>